

0500



#2

OIEP

ENTERED

RAW SEQUENCE LISTING

DATE: 03/27/2002

PATENT APPLICATION: US/10/091,628

TIME: 14:03:49

Input Set : A:\LEX-0314-USA SEQLIST.txt

Output Set: N:\CRF3\03272002\J091628.raw

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4 <110> APPLICANT: Wilganowski, Nathaniel L.
5     Nepomnichy, Boris
6     Burnett, Michael B.
7     Hu, Yi
9 <120> TITLE OF INVENTION: Novel Human Transporter Proteins and Polynucleotides
Encoding the
10     Same
12 <130> FILE REFERENCE: LEX-0314-USA
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C--> 14 <141> CURRENT FILING DATE: 2002-03-06
14 <150> PRIOR APPLICATION NUMBER: US 60/275,009
15 <151> PRIOR FILING DATE: 2001-03-12
17 <150> PRIOR APPLICATION NUMBER: US 60/284,152
18 <151> PRIOR FILING DATE: 2001-04-17
20 <160> NUMBER OF SEQ ID NOS: 6
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
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26 <211> LENGTH: 1134
27 <212> TYPE: DNA
28 <213> ORGANISM: Homo sapiens
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32 ccagtgggac tggagggtgca tggaaacctg gagctcgttt tcacagtggg gtccactgtg      120
33 atgatggggc tgctcatgtt ctctttggga tgttcctggt agatccggaa gctgtggtcg      180
34 cacatcagga gacctggtg cattgctgtg ggactgctct gccagtttgg gctcatgcct      240
35 ttacagctt atctcctggc cattagcttt tctctgaagc cagtccaagc tattgctgtt      300
36 ctcatcatgg gctgctgccc ggggggcacc atctctaaca ttttcacctt ctgggttgat      360
37 ggagatatgg atctcagcat cagtatgaca acctgttcca ccgtggccgc cctgggaatg      420
38 atgccactct gcatttatct ctacacctgg tcctggagtc ttcagcagaa tctcaccatt      480
39 ccttatcaga acataggaat tacccttggt tgccctgacca ttcctgtggc ctttgggtgc      540
40 tatgtgaatt acagatggcc aaaacaatcc aaaatcattc tcaagattgg ggccgttggt      600
41 ggtgggggtcc tccttctggt ggtcgcagtt gctgggtgtg tcctggcgaa aggatcttgg      660
42 aattcagaca tcaccttctt gaccatcagt ttcatcttct ctttgattgg ccatgtcacg      720
43 ggttttctgc tggcactttt taccaccagc tcttggcaaa ggtgcaggac aatttcctta      780
44 gaaactggag ctcagaatat tcagatgtgc atcaccatgc tccagttatc tttcactgct      840
45 gagcacttgg tccagatgtt gagtttccca ctggcctatg gactcttcca gctgatagat      900
46 ggatttctta ttgttcgagc atatcagacg tacaagagga gattgaagaa caaacatgga      960
47 aaaaagaact caggttgcaac agaagtctgc catacagga aatcgacttc ttccagagag      1020
48 accaatgcct tcttggaggt gaatgaagaa ggtgccatca ctctggggcc accagggcca      1080
49 atggattgcc acagggctct cgagccagtt ggccacatca cttcatgtga atag          1134
51 <210> SEQ ID NO: 2
52 <211> LENGTH: 377
53 <212> TYPE: PRT
54 <213> ORGANISM: Homo sapiens

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58 1 5 10 15
59 Glu Glu Glu Leu Pro Val Gly Leu Glu Val His Gly Asn Leu Glu Leu
60 20 25 30
61 Val Phe Thr Val Val Ser Thr Val Met Met Gly Leu Leu Met Phe Ser
62 35 40 45
63 Leu Gly Cys Ser Val Glu Ile Arg Lys Leu Trp Ser His Ile Arg Arg
64 50 55 60
65 Pro Trp Gly Ile Ala Val Gly Leu Leu Cys Gln Phe Gly Leu Met Pro
66 65 70 75 80
67 Phe Thr Ala Tyr Leu Leu Ala Ile Ser Phe Ser Leu Lys Pro Val Gln
68 85 90 95
69 Ala Ile Ala Val Leu Ile Met Gly Cys Cys Pro Gly Gly Thr Ile Ser
70 100 105 110
71 Asn Ile Phe Thr Phe Trp Val Asp Gly Asp Met Asp Leu Ser Ile Ser
72 115 120 125
73 Met Thr Thr Cys Ser Thr Val Ala Ala Leu Gly Met Met Pro Leu Cys
74 130 135 140
75 Ile Tyr Leu Tyr Thr Trp Ser Trp Ser Leu Gln Gln Asn Leu Thr Ile
76 145 150 155 160
77 Pro Tyr Gln Asn Ile Gly Ile Thr Leu Val Cys Leu Thr Ile Pro Val
78 165 170 175
79 Ala Phe Gly Val Tyr Val Asn Tyr Arg Trp Pro Lys Gln Ser Lys Ile
80 180 185 190
81 Ile Leu Lys Ile Gly Ala Val Val Gly Gly Val Leu Leu Val Val
82 195 200 205
83 Ala Val Ala Gly Val Val Leu Ala Lys Gly Ser Trp Asn Ser Asp Ile
84 210 215 220
85 Thr Leu Leu Thr Ile Ser Phe Ile Phe Pro Leu Ile Gly His Val Thr
86 225 230 235 240
87 Gly Phe Leu Leu Ala Leu Phe Thr His Gln Ser Trp Gln Arg Cys Arg
88 245 250 255
89 Thr Ile Ser Leu Glu Thr Gly Ala Gln Asn Ile Gln Met Cys Ile Thr
90 260 265 270
91 Met Leu Gln Leu Ser Phe Thr Ala Glu His Leu Val Gln Met Leu Ser
92 275 280 285
93 Phe Pro Leu Ala Tyr Gly Leu Phe Gln Leu Ile Asp Gly Phe Leu Ile
94 290 295 300
95 Val Ala Ala Tyr Gln Thr Tyr Lys Arg Arg Leu Lys Asn Lys His Gly
96 305 310 315 320
97 Lys Lys Asn Ser Gly Cys Thr Glu Val Cys His Thr Arg Lys Ser Thr
98 325 330 335
99 Ser Ser Arg Glu Thr Asn Ala Phe Leu Glu Val Asn Glu Glu Gly Ala
100 340 345 350
101 Ile Thr Pro Gly Pro Pro Gly Pro Met Asp Cys His Arg Ala Leu Glu
102 355 360 365
103 Pro Val Gly His Ile Thr Ser Cys Glu
104 370 375

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106 <210> SEQ ID NO: 3
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108 <212> TYPE: DNA
109 <213> ORGANISM: Homo sapiens
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113 ttgctggcca acagttattg gaatgattct ccatggtgta cttcgttgca ctattacaaa      120
114 atgtggcagg atagacctgc ccagccattg ttgccgatgt tcatttgtaa tgctgcctta      180
115 aggagatgag gagatgagag ccaattgttc cagcagctca gcctgccctg ccaacagttc      240
116 aagaggaggag ctgccagtgg gactggaggt gcatggaaac ctggagctcg ttttcacagt      300
117 ggtgtccact gtgatgatgg ggctgctcat gttctctttg ggatgttccg tggagatccg      360
118 gaagctgtgg tcgcacatca ggagaccctg gggcattgct gtgggactgc tctgccagtt      420
119 tgggctcatg ccttttacag cttatctcct ggccattagc ttttctctga agccagtcca      480
120 agctattgct gttctcatca tgggctgctg cccggggggc accatctcta acattttcac      540
121 cttctggggt gatggagata tggatctcag catcagtatg acaacctgtt ccaccgtggc      600
122 cgccctggga atgatgccac tctgcattta tctctacacc tggtcctgga gtcttcagca      660
123 gaatctcacc attccttatc agaacatagg aattaccctt gtgtgcctga ccattcctgt      720
124 ggcttttggg gtctatgtga attacagatg gccaaaacaa tccaaaatca ttctcaagat      780
125 tggggccggt gttggtgggg tcctccttct ggtggtcgca gttgctgggt tggtcctggc      840
126 gaaaggatct tggaaattcag acatcacctt tctgaccatc agtttcatct ttcctttgat      900
127 tggccatgtc acgggttttc tgctggcact ttttaccac cagtcttggc aaaggtgcag      960
128 gacaatttcc ttagaaaactg gagctcagaa tattcagatg tgcatcacca tgctccagtt      1020
129 atcttttact gctgagcact tggtcagatg gttgagtttc ccactggcct atggactctt      1080
130 ccagctgata gatggatttc ttattgttgc agcatatcag acgtacaaga ggagattgaa      1140
131 gaacaaacat ggaaaaaaga actcaggttg cacagaagtc tgccatacga ggaaatcgac      1200
132 ttcttccaga gagaccaatg ccttcttggg ggtgaatgaa gaaggtgcc aactcctgg      1260
133 gccaccaggg ccaatggatt gccacaggc tctcgagcca gttggccaca tcacttcatg      1320
134 tgaatagcag ggactagctg gctggactgg ccccttctt tttcagtggc cagtaaagac      1380
135 agtgtgcagc tgacacatga atcttgttgg tagggccagt gtgaatattt aagtgttcaa      1440
136 tgttagaata tttatatttt catgtggatt gtgaattgtg atgggatcac ttttgagat      1500
137 tccattttca gggagtttct tctggggggt aacataacgt atcaatgagc tgccttgat      1560
138 gttcttgtct tcccatgcag caaatagtag cctggcccta      1600
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143 <213> ORGANISM: Homo sapiens
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147 atgtcatcgc tcagttttct gaatatagag aagactgaaa tactattttt caciaagact      120
148 gaagaaacca tccttgtaa gttcaagctac gaaaataaac ggctaattc cagccacctc      180
149 tttgtgaaaa tagaagatcc taaaatacta caaatggtga atgtggccaa gaagatctca      240
150 tcagatgcta caaactttac cataaatctg gtgactgatg aagaaggaga aacaaatgtg      300
151 actattcaac tctgggattc tgaaggtagg caagaaagac tcattgaaga aatcaagaat      360
152 gtgaaagtca aagtgtctca acaaaaagac agtctactcc aggcaccaat gcatattgat      420
153 agaaayatcc taatgcttat ttaccacta atactattga ataagtgtgc atttggttgt      480
154 aagattgaat tacagctgtt tcaaacagta tgggaagagac ctttgccagt aattcttggg      540
155 gcagttacac agttttttct gatgccattt tgcgggtttc ttttgtctca gattgtggca      600
156 ttgcctgagg cgcaagcttt tggagttgta atgacctgca cgtgccagg aggggtggg      660
157 ggctatctct ttgctctgct tctagatgga gatttcacat tggccatttt gatgacttgc      720

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158 acatcaacat tattggctct gatcatgatg cctgtcaatt cttatatata cagtaggata      780
159 ttaggggtgt caggtagatt ccatattcct gtttctaaaa ttgtgtcaac actccttttc      840
160 atacttggtc cagtatcaat tggaatagtc atcaagcata gaatacctga aaaagcaagc      900
161 ttcttagaga gaataattag acctctgagt tttattttta tggtcgtagg aattttatttg      960
162 actttcacag tgggattagt gttcttaaaa acagataatc tagagggtgat tctgttgggt      1020
163 ctcttagttc ctgctttggg tttgctgttt gggtaactcct ttgctaaaagt ttgtacgctg      1080
164 cctcttcctg tttgtaaaaa tggtgctatt gaaagtggga tgtaaaatag tttcttagct      1140
165 cttgccgtta ttcagctgtc ttttccacag tccaaggcca atttagcttc tgtggctcct      1200
166 ttacagtag  ccagtgttc  tggatgtgaa  atgttactga  tcattctagt  ttacaaggct      1260
167 aagaaaagat gtatcttttt cttacaagat aaaaggaaaa gaaatttcct aatctaa      1317
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170 <211> LENGTH: 438
171 <212> TYPE: PRT
172 <213> ORGANISM: Homo sapiens
174 <400> SEQUENCE: 5
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176 1 5 10 15
177 Glu Glu Ala Arg Met Ser Ser Leu Ser Phe Leu Asn Ile Glu Lys Thr
178 20 25 30
179 Glu Ile Leu Phe Phe Thr Lys Thr Glu Glu Thr Ile Leu Val Ser Ser
180 35 40 45
181 Ser Tyr Glu Asn Lys Arg Pro Asn Ser Ser His Leu Phe Val Lys Ile
182 50 55 60
183 Glu Asp Pro Lys Ile Leu Gln Met Val Asn Val Ala Lys Lys Ile Ser
184 65 70 75 80
185 Ser Asp Ala Thr Asn Phe Thr Ile Asn Leu Val Thr Asp Glu Glu Gly
186 85 90 95
187 Glu Thr Asn Val Thr Ile Gln Leu Trp Asp Ser Glu Gly Arg Gln Glu
188 100 105 110
189 Arg Leu Ile Glu Glu Ile Lys Asn Val Lys Val Lys Val Leu Lys Gln
190 115 120 125
191 Lys Asp Ser Leu Leu Gln Ala Pro Met His Ile Asp Arg Asn Ile Leu
192 130 135 140
193 Met Leu Ile Leu Pro Leu Ile Leu Leu Asn Lys Cys Ala Phe Gly Cys
194 145 150 155 160
195 Lys Ile Glu Leu Gln Leu Phe Gln Thr Val Trp Lys Arg Pro Leu Pro
196 165 170 175
197 Val Ile Leu Gly Ala Val Thr Gln Phe Phe Leu Met Pro Phe Cys Gly
198 180 185 190
199 Phe Leu Leu Ser Gln Ile Val Ala Leu Pro Glu Ala Gln Ala Phe Gly
200 195 200 205
201 Val Val Met Thr Cys Thr Cys Pro Gly Gly Gly Gly Tyr Leu Phe
202 210 215 220
203 Ala Leu Leu Leu Asp Gly Asp Phe Thr Leu Ala Ile Leu Met Thr Cys
204 225 230 235 240
205 Thr Ser Thr Leu Leu Ala Leu Ile Met Met Pro Val Asn Ser Tyr Ile
206 245 250 255
207 Tyr Ser Arg Ile Leu Gly Leu Ser Gly Thr Phe His Ile Pro Val Ser
208 260 265 270

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209 Lys Ile Val Ser Thr Leu Leu Phe Ile Leu Val Pro Val Ser Ile Gly
 210 275 280 285
 211 Ile Val Ile Lys His Arg Ile Pro Glu Lys Ala Ser Phe Leu Glu Arg
 212 290 295 300
 213 Ile Ile Arg Pro Leu Ser Phe Ile Leu Met Phe Val Gly Ile Tyr Leu
 214 305 310 315 320
 215 Thr Phe Thr Val Gly Leu Val Phe Leu Lys Thr Asp Asn Leu Glu Val
 216 325 330 335
 217 Ile Leu Leu Gly Leu Leu Val Pro Ala Leu Gly Leu Leu Phe Gly Tyr
 218 340 345 350
 219 Ser Phe Ala Lys Val Cys Thr Leu Pro Leu Pro Val Cys Lys Thr Val
 220 355 360 365
 221 Ala Ile Glu Ser Gly Met Leu Asn Ser Phe Leu Ala Leu Ala Val Ile
 222 370 375 380
 223 Gln Leu Ser Phe Pro Gln Ser Lys Ala Asn Leu Ala Ser Val Ala Pro
 224 385 390 395 400
 225 Phe Thr Val Ala Met Cys Ser Gly Cys Glu Met Leu Leu Ile Ile Leu
 226 405 410 415
 227 Val Tyr Lys Ala Lys Lys Arg Cys Ile Phe Phe Leu Gln Asp Lys Arg
 228 420 425 430
 229 Lys Arg Asn Phe Leu Ile
 230 435

232 <210> SEQ ID NO: 6

233 <211> LENGTH: 1777

234 <212> TYPE: DNA

235 <213> ORGANISM: Homo sapiens

237 <400> SEQUENCE: 6

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239	atctgttaaa	tgccatgact	ttttaattgt	cttaatcaca	agttaaaccg	gttgtgttgc	120
240	tgttagatg	gctatatatt	tgtttaaaag	tacagcagtc	cctcctactg	gactttgatc	180
241	ctacaaaaac	aactgttatc	taactcaccc	tcagactgtc	actggaacac	ctgcatgaag	240
242	aatgttcttt	cattttttta	aaacgatttt	gcataatga	tttatttcag	ctttcaaaat	300
243	gattagaaaa	ctttttattg	ttctactttt	gttgcttgtg	actatagaag	aagcaaggat	360
244	gtcatcgctc	agttttctga	atatagagaa	gactgaaata	ctatttttca	caaagactga	420
245	agaaaccatc	cttgtaagtt	caagctacga	aaataaacgg	cctaattcca	gccacctctt	480
246	tgtgaaaata	gaagatccta	aaatactaca	aatggtgaat	gtggccaaga	agatctcatc	540
247	agatgctaca	aactttacca	taaatctggt	gactgatgaa	gaaggagaaa	caaagtgtac	600
248	tattcaactc	tgggattctg	aaggtaggca	agaaagactc	attgaagaaa	tcaagaatgt	660
249	gaaagtcaaa	gtgctcaaac	aaaaagacag	tctactccag	gcaccaatgc	atattgatag	720
250	aaayatccta	atgcttattt	taccactaat	actattgaat	aagtgtgcat	ttggttgtaa	780
251	gattgaatta	cagctgtttc	aaacagtatg	gaagagacct	ttgccagtaa	ttcttggggc	840
252	agttacacag	ttttttctga	tgccattttg	cgggtttctt	ttgtctcaga	ttgtggcatt	900
253	gcctgaggcg	caagcttttg	gagttgtaat	gacctgcacg	tgcccaggag	ggggtggggg	960
254	ctatctcttt	gctctgcttc	tagatggaga	tttcacattg	gccattttga	tgacttgcac	1020
255	atcaacatta	ttggctctga	tcatgatgcc	tgtcaattct	tatatataga	gtaggatatt	1080
256	agggttgtca	ggtacattcc	atattcctgt	ttctaaaatt	gtgtcaacac	tccttttcat	1140
257	acttgtgcc	gtatcaattg	gaatagtc	caagcataga	atacctgaaa	aagcaagctt	1200
258	cttagagaga	ataattagac	ctctgagttt	tatttttaatg	ttcgtaggaa	tttatttgac	1260
259	tttcacagtg	ggattagtgt	tcttaaaaac	agataatcta	gaggtgattc	tgttgggtct	1320

VERIFICATION SUMMARY

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TIME: 14:03:50

Input Set : A:\LEX-0314-USA SEQLIST.txt

Output Set: N:\CRF3\03272002\J091628.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date